

Advisory Committee on Land Record Modernization Standards
Meeting Notes 7-14-2004
by Erik Hubl

Attendance: Larry Zink, Jim Langtry, Erik Hubl, John Beran, Jim Koch, Dan Silvis, Gail Knapp, Pat Meisinger – Cass County Register of Deeds, Larry Dix - Executive Director NACO, Jim Richardson – NE Geodetic Advisor

The meeting began at 1:05. Larry Z. opened with discussion about the last minutes. His recollection of the scale factor discussion did not include 1:1,200 (1 inch = 100 feet). The group discussed the various scales some more, understanding that scale factors are a function of a printed map and that computer GIS systems can zoom in and out at will. We agreed that the absolute minimum scale desired should be 1:12,000 (1 inch = 1,000 feet). This is the published scale of the NE DOQQ's (Digital Orthophoto Quarter Quadrangles). Nebraska has two complete statewide sets – 1993 and 1999. Realizing that counties don't have a lot of funds, the group agreed to set the minimum standard to match the DOQQ's and to provide additional scales as recommendations only.

Jim K. handed out a city population and size classification list.

Dan informed the group that the City of Blair has a GIS in the works. They are using ProMap products.

Discussion about the Nebraska State Plane coordinate system: Erik pointed out that the NE statutes specify metric units in the coordinate system. Jim L. brought up the fact that today's GIS systems have more flexibility with differing units of measurement and also differing projection systems. The latest ESRI software is able to deal with these differences and fit to whatever projection parameters the user needs. This almost makes the choice of projection system a transparent issue. Lancaster County uses a localized projection system and units are in feet. Douglas County uses a State Plane projection system and units are in meters.

Gail suggested that if we set the standard as the Nebraska State Plane then it may be best to only recommend (and not require) which units of measurement are applied. The Federal push for the adoption of the metric system has waned. Even the NDOR has reverted back to the English system with some map productions since it is no longer a federal requirement. Erik pointed out that the Public Land Survey System (PLSS) and each section, township, range and measurement of rods and chains are all derivatives and multiples of the 'mile' English unit. All road ROW such as the standard 33' are easier to annotate on a map (instead of the corresponding 10.058 meters).

The State Plane projection system identifies the North American Datum of 1983 (NAD83) parameter. Jim Richardson pointed out that there are an increasing number of new datums for North America. This is coming about as a result of increased capability of precision measurement by GPS and the fact that the earth landmass configurations are a dynamic and changing system. Plate tectonics is just one factor that causes measurable changes in a point's true location. New datum adjustment tools typically become available to help transform from one datum to the next, as needed.

John provided the group with handouts describing the re-monumentation of PLSS section corners. A 1986 directive to all County Surveyors stipulates the necessary requirements needed to reestablish lost or obliterated corners (Jim Brown, State Surveyor 86-1). Only the State Surveyor or the County Surveyor (and their assigns) can perform the reestablishment of a lost corner.

John reminded us that monumenting corners can be expensive. Most of the cost comes from the time required to research records and then to locate where the position should be on the ground. The time needed for the actual (GPS) survey of the recovered or reestablished monument is minimal. (Note, from previous discussions and estimates it is believed that it could cost up to \$500 per point).

John reiterated that the State Surveyors Office does not have a budget or a survey team that could perform this work. The expense of doing this work essentially falls to the county. John has started a dialogue with Kent Kennedy (NDOR) to obtain those section corner data that have been collected from various road projects.

Larry asked John what he thought should be the minimum standard for obtaining GPS coordinates on PLSS monuments – statewide. John felt that at a minimum it should be the county boundary corners or those that define the perimeter of a county. In many cases it would be four corners (for those counties that are a 4 x 4 township shape) Some county boundaries are defined by a river. In those cases a witness corner or perhaps the nearest quarter corner might be used. Other counties may also have correction lines or standard parallels which would introduce additional monuments that define the boundary. These occur every 24 miles north from the southern Nebraska line. SSO said they would be willing to be the steward of the data once it has been obtained.

Jim R. advised us that in the near future a “Virtual Reference Station” will be installed between Lincoln and Omaha. This will aid GPS surveying by providing more accurate readings in less time. Distances up to 30 km from point to point (with improved accuracy) may be possible.

It was also reiterated that agreement on a county boundary line will be needed with adjoining counties. Or in other words, cooperation and coordination between individual county surveyors will be required.

The group agreed with the original recommendation that the Nebraska system be tied to the National Spatial Reference System (NSRS).

The group also agreed with the original recommendation that the geodetic framework for any developed cadastre be the PLSS.

Larry Dix – Executive Director for the Nebraska Association of County Officials (NACO) provided us with some information regarding several proposed legislative bills introduced in the last legislative session. LB232 was supported by county Register of Deeds officials. It is a proposal to enact law that creates funding for the preservation of records in county court houses in Nebraska. This is an important necessity as many old legal documents are rapidly becoming deteriorated and unreadable. Technologies exist to

scan and preserve the information from these old documents. Several counties already use these methods but most counties simply lack the resources.

LB1169 was supported by the NE GIS community. It is a proposal to enact law that creates funding for Land Records Modernization. Again, many counties lack the financial resources and the technical skill needed to computerize and update land (parcel) records. Both bills failed to advance to the floor. Senator Wehrbein asked if it were possible to combine the two bills. Larry D. reported that NACO has formed a Technology Task Force to discuss this topic and that they had a conference call that very morning. In LB232 a sunset provision had been included to eventually phase out the funding provision. Senators Landis - Lincoln, Wehrbein - Plattsmouth and Smith - Scottsbluff are all involved in these discussions.

At the National Association of County Officials (NACo), Larry D. said they signed an agreement with ESRI to conduct GIS training for 'participating' county officials. Also a grant opportunity is available to help fund county GIS projects. Nebraska has about 30 counties that are members of (National) NACo. Larry D. said the (Nebraska) NACO has taken on a more active role in getting NE counties involved with National.

Pat Meisinger - Cass County Register of Deeds gave a brief review of their perspective. She pointed out that not all filed deeds list an acre amount. Many split parcels have to have their acre amount derived by the assessor. In our previous minutes we had referred to "deeded acres vs. actual acres". This phrase, although ambiguous is meant to imply that a commanding document such as a filed deed or a filed survey that clearly identifies any acre amount or implies it by the use of aliquot parts (ex. NE1/4 = 160 acres, S1/2, NW1/4 = 80 acres, SW1/4, SE1/4 = 40 acres and so on) is the value that should be used for valuation purposes. But precisely drafted GIS and CAD systems are illustrating the fact that these tracts often have more or less than the prescribed amount. If someone would attempt to merge or join other spatial datasets such as soil surveys or landuse shapes together then the resulting areas may not total up to be the same. The computer's area value will most certainly not match some filed survey/deed areas. Fortunately proportioning tools are available to help portion out any corresponding values and summaries. This group is aware that not all Nebraska county GIS systems take this factor into account.

In regards to the proposed fee on deed filings, it was stated that it is the county board that currently redistributes some of the fee money obtained from filings. Erik felt that the two proposals (LB232 & LB1169) should not be in competition with each other and that it could be a hand-holding effort. The importance of securing and preserving filed records should be as important as the development of a land management system that relies upon some of those very documents. A completed land management system (Parcel level GIS) should be able to connect to and access those deeds in electronic form. It was also felt that any new proposal should try to be presented without a sunset provision on funding. Although it certainly makes sense to revisit the enacted law in perhaps 5 year intervals to assess the operation and funding stream. Justification for enacting such a law is made clearer by the fact that a new filed deed produces a series of events and duties that are statutorily required to be performed by many different local government offices.

Jim Koch provided us with a number of handouts that illustrate how DPAT works with property information. They are also in the unique position of performing county assessment responsibilities for nine Nebraska counties.

Information supplied by Jim Koch –DPAT:

- An example of a Property Record Card for a 160-acre tract of land in Saunders County for 2001. Information is broken out by improvements and land value. Land value is further broken out by soil type and use.
- Some additional data reports on the same parcel. Assessment summary sheet, cost approach data sheet, a listing of rural outbuildings and an agland inventory sheet. A land value grouping (LVG) sheet and associated values are also included.
- An example of a Certificate of Taxes Levied (CTL) for all of Saunders County (2003). First page is a summary of amounts from Schedules I – VI.
- CTL Schedule I lists a breakdown of total valuation in the county by property type. Also listed are the tax (levy) rates for all county funds, projects or bonds.
- CTL Schedule II provides us with examples of taxes levied by Township, Fire District, Natural Resource District(s), a Miscellaneous District (Ag. Society), an Educational Service Unit and a Community College.
- CTL Schedule III is an example of one school district and the School Taxes Levied. A second sheet of the same school district summarizes a separate school bond.
- A map of Saunders County showing (DPAT) geocode numbers. This 4 digit township numbering system covers all townships in Nebraska. Each township has a unique geocode number.
- A map of Saunders County showing five different market areas (neighborhoods). These are assessor determined areas that group agland into common market groups.
- A map of Saunders County showing school districts boundaries. This data layer was originally maintained by the Nebraska Dept. of Education but has since fallen behind with updates. New school district boundary changes are typically filed with the County Clerk.
- An example of a 2004 County Abstract, (Form 45) Four pages.
- A 2004 report of percentages of land class groupings and average assessed value in one of the counties market areas.
- A listing of all of the taxing entities in Saunders County.

Jim K. also supplied us with pages 9 – 12 of Chapter 10 Real Property Regulations (updated 03/04). These pages describe the information that every assessor is required to collect on a parcel and included on the property record card.

Jim K. said that many counties (perhaps nearly 50) are capturing data in a similar digital form yet many still submit this information to DPAT as paper documents that have to be manually reentered. Larry Z. asked if we could obtain field size definitions and code definitions for those items required by DPAT. Jim K. said he would ask the IT folks.

For the next meeting Larry Z. asked us to look over the recommendations from the original guidebook (reprinted onto a one-page handout). Also study the handouts from

DPAT and SSO. Jim K. said he would try to get us copies of the latest IAAO digital Cadastral Mapping document since Kathy Lang is a member of that organization.

Next meeting: Wed, August 18th, 2004 1:00 PM NDOR